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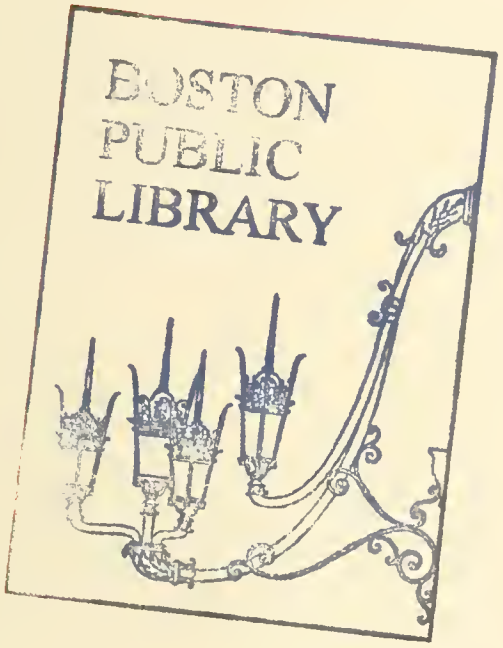
# MASSPORT SEAPORT STRATEGY




A DRAFT FOR CIRCULATION AND COMMENT BY

***Massachusetts Port Authority***

BOSTON, MASSACHUSETTS

massport

# A MESSAGE FROM THE EXECUTIVE DIRECTOR

Boston's seaport is one of our region's most important economic assets. Our public marine terminals insure that Massachusetts is an effective competitor in the international marketplace, helping our state's business community reach out to new opportunities around the globe.

Yet, despite the vital role played by the cargo facilities of the Port of Boston, and despite Boston's rich history as a maritime community, our seaport remains one of the least understood and most undervalued components of our region's transportation system. Nearly everyone in Massachusetts has driven on the turnpike or traveled through Logan Airport -- but far fewer Massachusetts residents ever see or hear about our equally valuable maritime facilities.

Since the mid-1970s, Massport has been engaged in a systematic and highly successful effort to revitalize Boston's public marine terminals and other aspects of the working waterfront:

- We've rehabilitated old terminals, built new terminals, and made major investments in maintaining our local fishing, lobstering and ship repair industries.

- We've redeveloped older waterfront properties which are no longer suited for modern cargo operations, and used the resulting commercial revenue as a cross-subsidy to support maritime operations.

- We've built the roads, sewers, and utility lines needed to serve our working waterfront -- and we have even purchased additional property to make sure there will always be adequate space available on the waterfront to meet the present and future needs of the seaport and other water-dependent industries.

- Working in cooperation with the City of Boston, we've helped plan the revitalization of key waterfront districts, while maintaining public access to the recreational opportunities afforded by one of the world's great harbors.

**Beginning in 1959, Massport has made a cumulative investment of $238 million in its waterfront properties. In fact, during the last decade alone, Massport has invested nearly $200 million in the working waterfront and related facilities.** This money has come not from state, city or federal tax dollars, but from Massport's own user fees, rents and independent bonding capacity. Unlike the airport, where some operating and capital costs are supported by the federal government, the Port of Boston has to survive and prosper without tax subsidies from any level of government: one of the original reasons for Massport's creation was to guarantee that there would be adequate support for this critical aspect of regional transportation.

Massport's investment has paid off handsomely for the citizens and businesses of the Commonwealth and has helped stimulate economic development throughout the New England region. Each ton of cargo handled at Massport's seaport facilities creates $985 in regional economic benefits. The direct and indirect economic benefits of seaport facilities are $1.3 billion per year.

Cargo tonnage, which was declining during the 1970s, has grown steadily since 1978, with exports leading the way. Massport's commercial developments, including the World Trade Center at Commonwealth Pier and the Fish Pier in South Boston as well as Constitution Plaza at Hoosac Pier in Charlestown, have brought economic revitalization and hundreds of jobs out of downtown and into the city's neighborhoods. Timely acquisition of the former Bethlehem Shipyard in East Boston and Charlestown's Revere Sugar Terminal have kept these facilities in service as parts of a growing and prospering waterfront community.

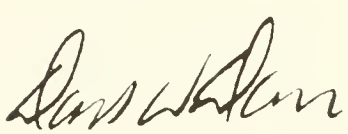
New technology and automated cargo-handling procedures, together with an increasingly productive working partnership between management and labor, have strengthened Boston's competitive position as a cargo port, and helped control shipping costs for New England businesses.

At Massport, we believe that the citizens of Massachusetts need to understand this record of success and the benefits which the Port of Boston provides to our regional economy. We also believe that the public needs to know what's in store for the working waterfront as we prepare for the increasingly international economy of the 1990s and beyond. To achieve that goal of better understanding, we have prepared this report on our Seaport Strategy.

After all, even with all that has been accomplished over the last fifteen years, the need for better understanding of -- and new investment in -- our seaport is now greater than ever. As Governor Michael Dukakis has observed, our state's economic future depends on our business community's ability to operate in an increasingly global economy. Our seaport is one of the principal gateways to worldwide economic opportunity, and a more prosperous future for the Commonwealth.

At the same time, we recognize and support the efforts of both city and state government to strike a productive and environmentally sensitive balance among the various industries and public interests which require waterfront access. Massport was an early pioneer in multi-use waterfront management, density and public access planning, and other good ideas which have now been codified into state and city regulations.

From the earliest days of the Massachusetts Bay Colony, Boston Harbor has been our region's most important transportation gateway, and our greatest natural resource. Through its proven commitment to Boston's working waterfront, Massport is helping to fulfill the extraordinary promise of that irreplaceable resource. With continued coordination of state, local and federal agencies, and with continued investment by Massport in vital water-related facilities, our seaport is already beginning to build a future as proud and prosperous as its past.



**David W. Davis**
**Executive Director**

# CONTENTS

*A Message from the Executive Director*

*Executive Summary* 3

*The Current Scene* 5

*Massport Looks Ahead 1990 - 21st Century* 6

1 Developer of Terminals
2 Port Advocate and Planner
3 Preserver of Port Options
4 Promoter of Water-Dependent Uses
5 Improver of Port Access
6 Redeveloper of Obsolete Properties
7 Provider of Public Access to the Waterfront

*Massport at the Seaport's Helm 1959 - 1989* 11

Port of Boston Conditions in 1959
Massport Cargo and Maintenance Investments, 1959 - 1976
The Changing Seaport Context of the Late 1970s
New Directions, 1977 - 1989

*Appendix A:*
*Chronology of Massport Maritime Property Development* 20

*Appendix B:*
*History of the Port 17th - 19th Century* 23
Early History
The 20th Century Port

*Appendix C:*
*Glossary of Port Terms* 25

*Appendix D:*
*Bibliography of Selected Port Studies* 26

# LIST OF FIGURES

1 Boston's Working Waterfront in 1989 4

2 Cumulative Investments in Port Facilities 5

3 Urban Design Plan, Commonwealth Flats 8

4 Waterfront Related Land Transferred to Massport By Enabling Act 1959 9

5 A Guide to Massport-owned Waterfront Properties 1989 12

6 Sites Purchased and Redeveloped for Port Use by Massport Since 1959 16

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# EXECUTIVE SUMMARY

Over the past 30 years, rapid and dramatic changes have transformed New England's overall economy and its port industries. In the past decade, Massport has developed and implemented a strategy to revitalize the port and maintain Boston's position as a competitive gateway for New England's international cargo. To meet the region's changing business and community needs, Massport has invested over $238 million in Port facilities and related redevelopment. Massport has the following responsibilities for the Port:

1. Develop and manage general cargo terminals to enhance the position of the region's shippers in international trade.

2. Serve as planner, advocate, and spokesman for the Port of Boston in local, state, and national forums. This includes participation in port planning with other agencies and interest groups, sponsorship of conferences, and a host of other informational, promotional, and administrative activities.

3. Preserve land and berthing space for the variety of boats, shipyards, marine contractors, and other services vital to an active port, both at Massport-owned properties and at other appropriate waterfront locations. When appropriate and feasible, purchase properties in Designated Port Areas to support and provide working waterfront activities.

4. Promote water dependent activities in the port, including the fishing and lobster industries, as evidenced in the $27.5 million renovation of the Boston Fish Pier and in the lobster terminal planned for a 3.5 acre site at the East Boston Piers. The Authority will continue to play a key role in planning the provision of fast, reliable water transportation in Boston harbor including the expansion of routes for the Airport Water Shuttle.

5. Preserve and enhance rail and truck routes and maintain deep water access to and from the Port in consultation and collaboration with the City of Boston and the Commonwealth.

6. Redevelop obsolete Massport-owned Port Properties for commercial purposes in order to help finance seaport development. This direct linkage is a means by which Massport can provide the costly public infrastructure necessary for a modern port.

7. Wherever feasible and appropriate, provide additional open space and public access to the water's edge in waterfront developments.

## *BOSTON'S WORKING WATERFRONT 1989*

Figure 1

Massport maritime properties

Massport waterfront redevelopment properties

Maritime-related properties not owned by Massport

Areas of concentrated port activity

**NOTE:** Seaport Access Road, South Boston Haul Road/ Bypass, Massport Haul Road, Third Harbor Tunnel, depressed Central Artery, and Central Artery Northern Area are all part of proposed roadway system for the year 2010

# THE CURRENT SCENE

*Editor's Note: A glossary of unfamiliar abbreviations and terms may be found in Appendix C.*

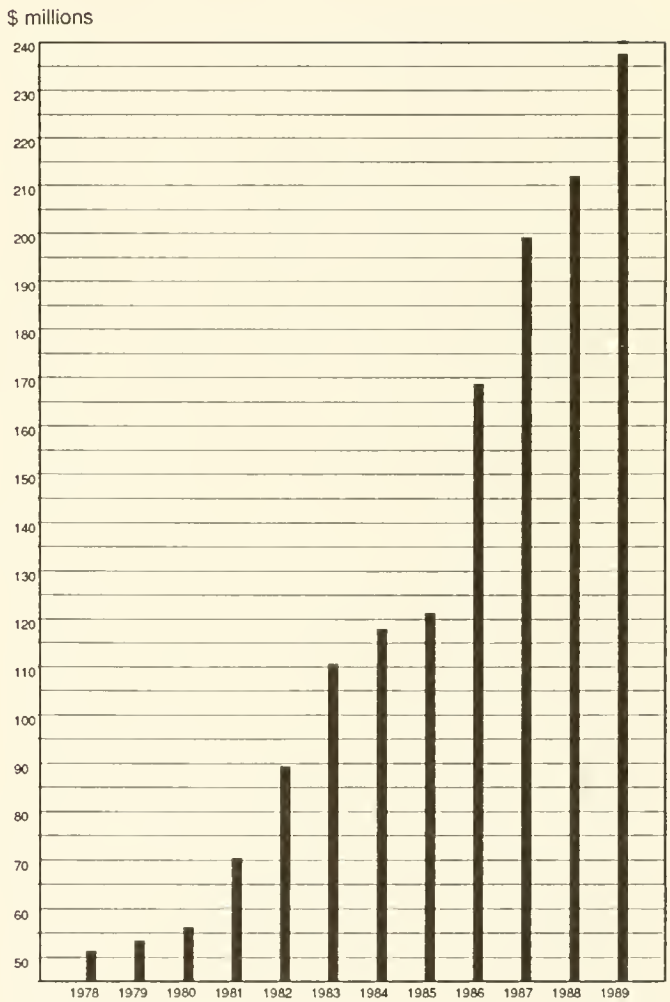
The combined public and private terminals of the Port of Boston handle more than 20 million tons of cargo a year. This cargo is worth more than $8 billion and is essential to the prosperity of the Boston and New England economies. By guaranteeing that all other port operators and overland carriers bringing goods to Boston must match the prices of direct marine service to Boston's seaport terminals, the Port maintains a competitive "Boston bill of lading." In turn, this bill of lading lowers shipping costs for all New England. More than 5,800 people are employed in jobs directly related to the Port.

Like all other transportation infrastructure, seaport infrastructure - piers, bulkheads, cranes - is a public good which requires public investment in order to maintain competitive services at reasonable cost. There is no federal funding of the U.S. port system. In some ports, public terminals are financed through the use of the state capital budget or local or county property taxes. Other ports, including Boston, are financially independent, relying on bonds and revenues from their own faciliities, cross-subsidizing as necessary.

As the agency chartered by the Legistlature to make these investments, and as the owner and operator of the port's public terminals, Massport is responsible for coordinating the planning and development of the Port of Boston and for building and operating its public terminals.

In keeping with changing trends in cargo handling, Port terminal functions have become concentrated and specialized in the past 30 years. Since 1959, Massport has therefore added eight new terminals at a cost of $115 million. Today, Massport's public terminals handle more than one million tons of high value general cargo per year. This cargo tonnage has increased 31% in the past five years.

Economic forecasts anticipate 4% average annual growth in general cargo through the end of the century.




***CUMULATIVE INVESTMENTS IN PORT AND REDEVELOPMENT FACILITIES*** Figure 2
***(include improvements, and maintenance, but not operating costs)***

# MASSPORT LOOKS AHEAD 1990 - 21ST CENTURY

Massport planning for the future of the Port of Boston will be guided by two mandates embodied in its Enabling Act:

- to plan, develop, market and operate the Port's public terminals; and,
- to coordinate planning and development of the commercial port as a whole, working with other interested parties, including private terminal operators, and city, state and federal agencies.

Massport acts on these goals by playing seven distinct roles in the Port:

## *1. DEVELOPER OF TERMINALS*

Cargo facility planning over the next ten years will respond to the demands of national and international commerce. Massport will finance port improvements with revenue bonds and user fees, as well as with linked revenue streams yielded by redevelopment of former maritime properties.

## *2. PORT ADVOCATE AND PLANNER*

Massport will continue to serve as a planner, advocate and spokesman for the wider port community. In its statutorily-created role as the planning agency for the Port of Boston, Massport will review Municipal Harbor Plan elements which affect the Port of Boston and will work with the Massachusetts Department of Environmental Protection to ensure that the public interest in tidelands is properly preserved.

Massport has worked cooperatively with other groups to advocate for and represent the port community. This responsibility includes: review of proposed regulations regarding waterfront development and construction; environmental protection; land use; road, rail and water transport, and open-space proposals directly related to the greater port area.

Massport will continue to provide leadership for port activites including:

- Promoting exports through the support of international trade missions.
- Acting as the local sponsor of U.S. Army Corps of Engineers harbor-deepening and channel maintenance projects.
- Coordinating private terminal operators in matters of common interest.
- Representing port interests before the Massachusetts Legislature and U.S. Congress.
- Taking a lead role in labor contract and rail rate negotiations.
- Maintaining its current local leadership role in the Boston Shipping Association, the Boston Propeller Club, the Foreign Commerce Club, the Boston Harbor Association, and the Port Operators Group, and by representing the Port of Boston at the national level through the North Atlantic Ports Association, American Association of Port Authorities and International Association of Ports and Harbors.
- Advising the Department of Public Works, Massachusetts Water Resources Authority, Department of Environmental Protection, and other public agencies on waterfront projects which affect the Port.

## *3. PRESERVER OF PORT OPTIONS*

Massport will continue to work with state and local agencies to protect the working port by preserving land for future terminals and maritime support activities. Where necessary and appropriate, Massport will purchase properties within Designated Port Areas to preserve the most desirable sites for future Port uses.

## *4. PROMOTER OF WATER-DEPENDENT USES*

Massport will work with the state and other interested parties to review demand for non-cargo, water-dependent uses. Massport will continue to promote the fish processing and lobster industries

by making capital investments for facilities as required; one example of this type of investment is a proposed lobster terminal at the East Boston Piers which is now under environmental review.

In addition, Massport will assist in the planning and design of water transportation facilities which involve use of the Logan ferry dock. For example, the Authority has invested time and money in the study of Inner and Outer Harbor ferry systems and subsidized the first 5 years of Airport Water Shuttle operations.

In 1985, Massport purchased the old Bethlehem Shipyard site in East Boston and, through a lease with Boston Marine Works, preserved it as a ship repair facility to service smaller and mid-sized vessels.

## *5. IMPROVER OF PORT ACCESS*

Successful and competitive terminal operations are dependent upon good inland transportation infrastructure. In conjunction with other agencies, Massport will seek to improve road and rail access to the waterfront while reducing congestion on local streets.

In South Boston, Massport supports truck access improvements planned by the Massachusetts Department of Public Works (MDPW) such as construction of the Seaport Access Road, Third Harbor Tunnel, South Boston Haul Road/Bypass, and reconstruction of the Massport Haul Road (see Fig. 3).

Massport will continue to press federal, state, local and private planners to include future freight demands in transportation planning. Dedicated truck routes, maintenance of rail rights-of-way, and new intermodal distribution centers will all be required in the future.

## *6. REDEVELOPER OF OBSOLETE PROPERTIES*

Commercial redevelopment of obsolete maritime properties such as the World Trade Center at Commonwealth Pier and Constitution Plaza at Hoosac Pier will continue to provide new revenue sources to finance Port investments.

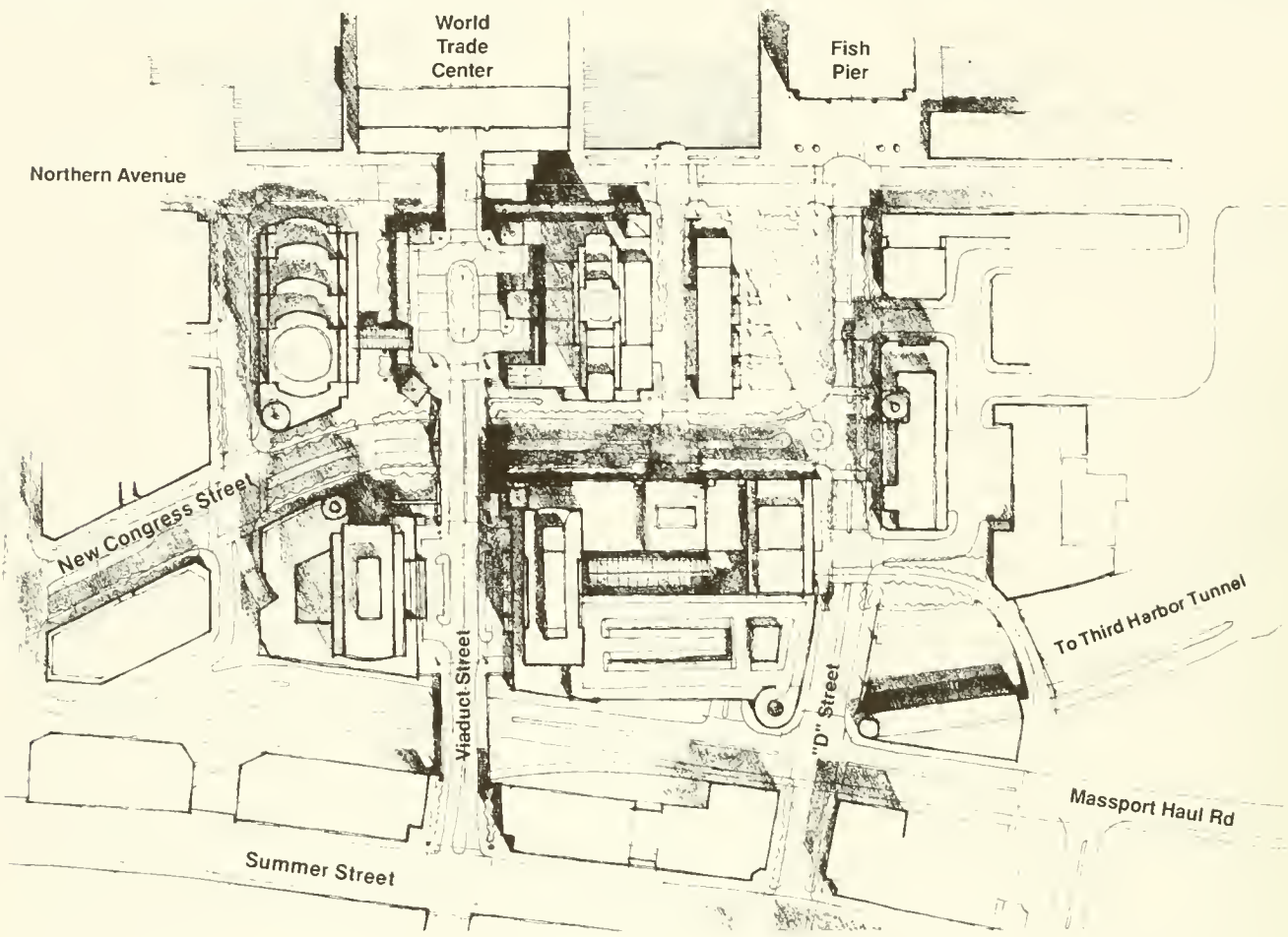
The proposed Commonwealth Flats (Fig. 3) and East Boston Piers redevelopments will generate revenues for Massport cargo and fishing industry facilities. By linking commercial redevelopment revenues to Port terminal improvements, Massport meets the "public purpose" requirement for development in public tidelands: "...for the benefit of the people of the Commonwealth, for the increase of their commerce and prosperity..."

Redevelopment of East Boston Piers 1 and 3 will address the needs of water dependent users as well as generate revenues from mixed-use facilities.

The history of the urban design plan for Commonwealth Flats reflects Massport's continuing efforts to integrate redevelopment of obsolete maritime properties with city and state planning for waterfront areas.

In 1983, Massport prepared a set of Urban Design Guidelines for the redevelopment of the Northern Avenue edge of Commonwealth Flats, a document which guided reconstruction of Northern Avenue and its abutting properties.

Starting in early 1986, Massport staff and consultants began the process of developing an urban design plan for the integration of Commonwealth Flats redevelopment, including the World Trade Center expansion, with the design of the new Seaport Access Road planned by MDPW. When the Boston Redevelopment Authority and Boston Transportation Department began their own planning for South Boston, all agency efforts were coordinated to produce a unified plan.




*URBAN DESIGN PLAN, COMMONWEALTH FALTS* Figure 3

Current planning for Commonwealth Flats envisions a new city district integrated into an overall block pattern with New Congress Street-- a broad, landscaped avenue-- at its center. A framework for the new district has been provided by a freshly redesigned street plan which integrates transit ways and highway ramps. Urban design guidelines for the provision of open space, landscaped harbor view corridors and building massing to maximize sunlight in public places have been incorporated into the redevelopment plan.

Implementation depends on coordinated actions by several agencies over the next several years. The MDPW, MBTA, the Massachusetts Turnpike Authority (MTA), Massport and various departments of the City of Boston must continue to act in concert to put this plan into effect.

## *7. PROVIDER OF PUBLIC ACCESS TO THE WATERFRONT*

Massport is committed to providing public open space and access to the waterfront whenever feasible and appropriate. Massport's Master Planning and Urban Design Guidelines for new development on Commonwealth Flats therefore require enhancement of the edge of Northern Avenue and proposed New Congress Street.

In addition to building a $2.8 million Harborwalk along the water's edge at Logan Airport, Massport is planning a 6-acre waterfront park at Pier 4 in East Boston. Public access to the water's edge will be extended during redevelopment of other portions of the East Boston Piers.

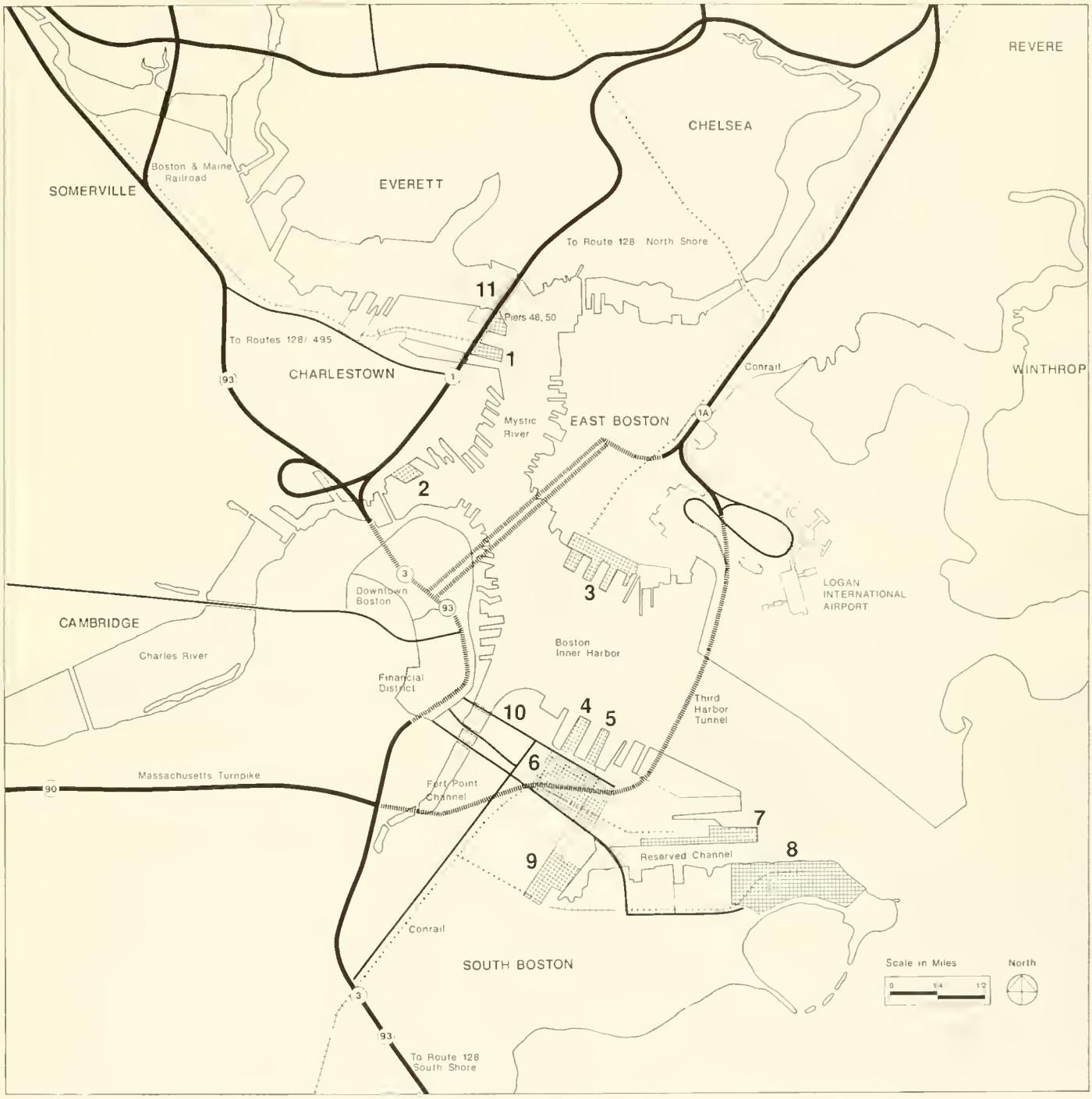



Figure 4

## *WATERFRONT RELATED LAND TRANSFERRED TO MASSPORT BY ENABLING ACT 1959*

**1 MYSTIC PIER #1**
- break-bulk
- rebuilt 1952
- Piers 48, 50

**2 HOOSAC PIER**
- a major 20th C grain terminal
- rebuilt 1950 for break-bulk use

**3 EAST BOSTON PIERS**
- bulk-loading
- grain elevators
- passenger pier
- constricted land access and backlands

**4 COMMONWEALTH PIER**
- under-utilized, narrow apron facility
- enormous floor area equivalent to 11 acres
- built as a rail terminus
- originally used for both passengers and cargo

**5 FISH PIER**
- built in 1914 by the Commonwealth to relocate activities from 'T' wharf
- leased out to private corporations

**6 COMMONWEALTH FLATS**
- used for industry and warehousing
- 19th C rail terminus later used by Navy

**7 SOUTH BOSTON ARMY BASE (buildings 117, 118 & 119)**
- WWI construction
- lease held for general cargo
- narrow apron facility

**8 CASTLE ISLAND TERMINAL**
- site filled for WWII use
- break-bulk shipping, lumber and automobiles

**9 FEDERAL PROPERTY**

**10 NORTHERN AVENUE**

**11 TOBIN BRIDGE**

NOTE: Seaport Access Road, South Boston Haul Road/ Bypass, Massport Haul Road, Third Harbor Tunnel, depressed Central Artery, and Central Artery Northern Area are all part of proposed roadway system for the year 2010

# MASSPORT AT THE SEAPORT'S HELM 1959 - 1989

In 1959, at the same time it acquired Logan Airport and the Tobin Bridge from the State, Massport assumed control of maritime facilities from the Port of Boston Commission, along with a mandate to serve the transportation needs of the shipping and traveling public.

Massport is financed much like a public utility: it derives all funds from revenue bonds and user fees, rather than from taxes, and contributes in-lieu-of-tax payments to Boston, Chelsea and Winthrop. Massport's three decades of Port administration can be best described by highlighting its activities in two distinct time periods:

- **1959-1976**: Primary focus on development of Logan Airport; exploratory development of container terminals; disinvestment in all older terminals partly in order to finance airport growth.

- **1977-1989**: Commitment to waterfront investment and revitalization of Port cargo terminals and redevelopment of obsolete terminals.

## *PORT OF BOSTON CONDITIONS IN 1959*

The Port facilities transferred in title or by lease to Massport in 1959 were functionally obsolete for the shipping needs of the time. They were underutilized because of decades of declining tonnage, an increasingly competitive shipping environment, labor unrest and low capital investment. (Fig. 4 locates these original Port Properties.)

- Commonwealth Pier, an 11-acre facility, was constructed in 1921 as a rail terminus for passengers and general cargo. Six railroad tracks ran the full length of the pier. Narrow aprons, lack of sufficient backlands for goods handling and storage, and limited truck access rendered Commonwealth Pier functionally obsolete by the 1950s.

- Castle Island Terminal, a site created by fill during World War II, had sufficient backlands storage space but trucks using the terminal had to travel through residential South Boston. Because of its proximity to Logan Airport, height restrictions were imposed along the Castle Island pier. It was chiefly used for break-bulk shipping, automobile processing and lumber handling.

- Hoosac Pier, Mystic Pier #1/48-50, and East Boston Pier #1 had been improved by the Port Commission in the 1950s to handle break-bulk cargo.

- Buildings 117-119 at the Boston Army Base were used for warehousing.

Some properties transferred to Massport, such as Commonwealth Lands (Flats) and the Northern Avenue right-of-way, had no maritime uses and were being used for light industry, vehicle repair, warehousing and transport.

## *MASSPORT CARGO AND MAINTENANCE INVESTMENTS, 1959-1976*

The national and international context for Port activities changed substantially between 1959 and the early 1970s. Worldwide, shippers were increasingly shifting from break-bulk to containerized shipment. Boston's limited container facilities put its seaport at a competitive disadvantage.

At the national level, cargo from the Midwest and Great Plains traditionally exported through Boston was being diverted to the St. Lawrence Seaway, which opened in 1959. In their heyday, grain elevators occupied portions of Hoosac Pier and a massive 800 foot-long elevator stood next to the East Boston Piers. Competition from the Seaway decisively ended the era of the Port of Boston's grain terminals.

*A GUIDE TO MASSPORT-OWNED WATERFRONT PROPERTIES 1989*

Figure 5

Maritime Properties

Waterfront Redevelopment Properties

Water Dependent Uses

**NOTE:** Seaport Access Road, South Boston Haul Road/ Bypass, Massport Haul Road, Third Harbor Tunnel, depressed Central Artery, and Central Artery Northern Area are all part of proposed roadway system for the year 2010

## *MARITIME PROPERTIES*

1 FORMER REVERE SUGAR TERMINAL
- purchased in 1986 for $6 M
- used for bulk cargo and construction staging

2 MORAN TERMINAL
- $54.1 M total investment; 1978 and 1987 expansion
- two container cranes;1100 foot long berth

3a MYSTIC PIER #1
- $9.2 M total investment
- Massport is seeking proposals for terminal re-use

3b MYSTIC PIERS #48-50
- Bulk salt terminal

4 BOSTON MARINE WORKS
- $ 10 M purchase in 1985
- environmental cleanup $1-2 M
- Massport preserves shipyard for maritime uses
- shipyard uses

5 MASSPORT MARINE TERMINAL
- Massport invests $22.5 M for 36 acres of new fill
- presently leased to private operators for automobile processing

6 BOSTON FISH PIER
- fish processing, fish company offices and rental space
- $27.5 M capital investment

7 NAVY RECREATION PROPERTY
- purchased 1981, $1.7 M total investment
- backlands space for cargo from Massport Marine Terminal
- containers and automobiles

8 SOUTH BOSTON ARMY BASE
- 4,800 ft of narrow apron berth
- berth and buildings 117, 118 and 119 purchased in 1988
- break-bulk cargo total investment $6.2 M (excluding Black Falcon)
- Black Falcon Cruise Terminal $7.1 M total investment

9 CONLEY TERMINAL BERTH 11
**(formerly Castle Island)**
- total investment $45.6 M
- two cranes; 1000 ft long berth

## *WATERFRONT REDEVELOPMENT PROPERTIES*

10 CONSTITUTION PLAZA
**(formerly Hoosac Pier)**
- new offices, restaurant and marina built in 1982
- $4 M Massport investment prior to leasing
- complements adjacent Navy Yard redevelopment
- provides public access to waterfront

11 EAST BOSTON PIERS
- waterfront park
- lobster terminal
- Massport is currently exploring maritime and mixed-use development options for Pier 1
- total investment $7.1 M

12 WORLD TRADE CENTER
**(Commonwealth Pier and Flats)**
- convention center
- support facilities (parking)
- convention business brings visitor dollars to Boston
- $21 M Massport investment (including Northern Avenue)
- $100 M private investment

13 HARBOR INDUSTRIAL PARK

14 NORTHERN AVENUE
- new infrastructure to support future public and private development
- ready link to downtown
- commercial traffic

## *WATER DEPENDENT USES*

15 LOGAN FERRY TERMINAL
- airport link to downtown

Massport's energies during the 1959-1976 period were focused on two objectives: 1) establishing Boston's place in a changed world of international commerce, by constructing the region's first container terminal; 2) buying out terminal operating leases in order to offer better coordination among the various seaport activities.

Massport selected a Charlestown site, comprised of a former railroad "coal pocket" and the Old Mystic Docks, to construct its first public container terminal. The Moran Terminal cost $25 million when opened in 1971. A private container terminal leased to Sea-Land Services was opened at Castle Island in 1970. Container terminals signalled the introduction of the modern capital-intensive approach to cargo handling in Boston.

Sites for additional container terminals were limited. The break-bulk piers at Mystic Pier #1/48-50, Hoosac Pier, the East Boston Piers, and Building 119 of the South Boston Army Base were unusable because they lacked adequate backlands and/or good highway access.

From 1959 to 1976, Massport did not invest in improvements to its oldest Port facilities. Both Commonwealth Pier and the adjacent Fish Pier, (whose lease was purchased in 1971) operated at a loss. Commonwealth Pier needed a new roof which Massport estimated would cost from $8 to $10 million. Hoosac Pier, rebuilt in 1950, required costly repairs to the failing bulkhead twenty years later, though the pier was no longer in maritime use. In short, by 1976, Massport's outdated and underutilized maritime properties could play a useful role in seaport development only if new and more appropriate uses could generate sufficient income to support investment in more modern terminals.

## *The Changing Seaport Context of the Late 1970s*

1976 marked a turning point for seaport planning at Massport. In response to changing national initiatives and local demands, Massport re-evaluated its capital expenditures, operating subsidies and land-use objectives for the Port. A new Massport Board and staff ushered in an era of maritime investment and revenue-generating commercial redevelopment.

In the 1970s, urban waterfronts were being rediscovered across the United States. Industrial and abandoned maritime properties were being reclaimed for residential, commercial and office uses that threatened permanently to displace cargo-handling activites .

A nascent environmental movement sponsored legislation which altered public perceptions of appropriate waterfront land uses. The Federal commitment to coastal zone management placed the burden of justifying proposed waterfront land uses upon property owners.

Boston's waterfront was being transformed. Downtown Boston experienced its first building boom in decades. Commercial and residential waterfront development extended from Fort Point Channel to the North End. Industrial development options were offered at the South Boston and Charlestown waterfronts, where the Army Base, Naval Annex, and Navy Yard had been decommissioned by the federal government.

## *NEW DIRECTIONS 1976 - 1989*

In 1976, the Massport Board established new directions for the agency which emphasized sensitivity to the effects of Massport's facilities on their neighbors and the environment, sophisticated budgeting mechanisms, and a comprehensive planning process for the Authority's facilities and properties.

### *Community Relations*

Massport's new community relations policy mandated that neighboring communities be kept informed about proposed projects from the earliest stage of land-use planning through to subsequent design and construction. In South Boston and Charlestown, community meetings were effective in designing truck routes, building a bridge, and in programming the reuse of finger piers of the Naval Annex for a new terminal.

### *New Financial Strategy*

While national and local influences were redefining directions for the Port, Massport continued to grapple with the issue of using capital to maintain Commonwealth and Hoosac Piers. The needs of the shipping industry, opportunities for commercial real estate redevelopment, changing regulatory forces, and the extent of operating losses, all suggested that Massport should find new uses for obsolete terminals.

Massport created a Property Management and Real Estate Development Department to accomplish these tasks. It was charged with finding new uses for underutilized Port properties which would create jobs, enhance the regional economy, and create a positive cash flow to be reinvested in port operations and improvements.

### *Planning and Development Objectives*

Massport defined planning objectives and investment strategies for each property identifying those suitable for maritime development and those which were no longer adequate for seaport uses. Key planning objectives for maritime properties remained unchanged:

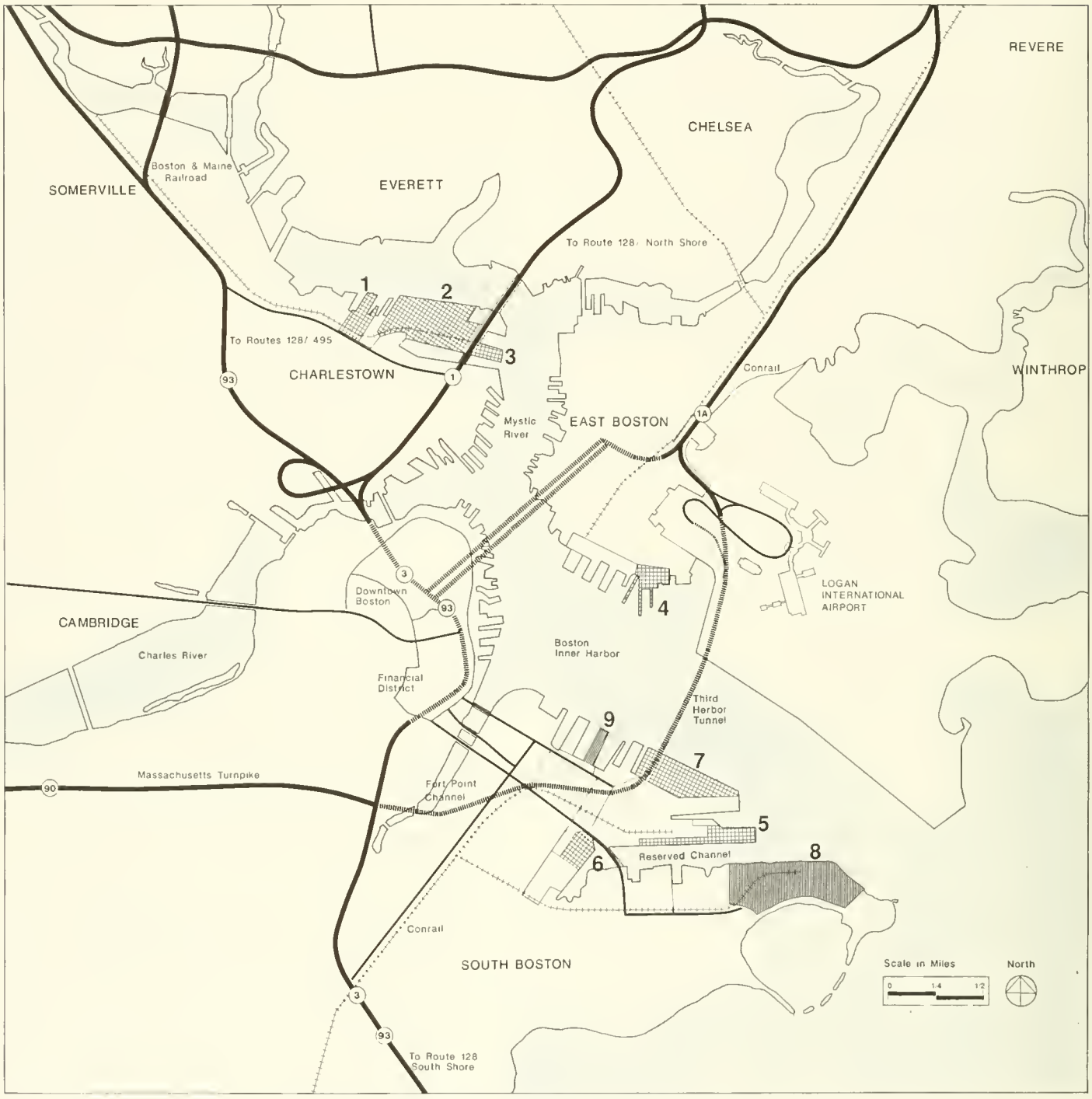
- to protect lands suitable for potential Port use in the long-term;
- to target key investments which helped maintain the Port's competitive position
- to minimize the negative impacts of Port facilities on adjacent residential communities.

### *Objectives and Achievements*

The Authority undertook studies of container shipping, the fishing industry, public amenities and urban water transportation to provide a context for establishing other important objectives for Port development. Massport's accomplishments of these objectives are dramatic:

1) To invest in public cargo terminals to meet the needs of New England shippers:

- Moran and Conley container terminals were developed, expanded and renovated by Massport and now handle nearly 100,000 containers per year.
- Massport developed the new Black Falcon Cruise terminal at the Boston Army Base.
- Massport created the Massport Marine Terminal at the Boston Marine Industrial Park by filling 36 acres at the South Boston Naval Annex. Together the South Boston terminals process 50,000 automobiles per year.




## *SITES PURCHASED AND REDEVELOPED FOR PORT USE BY MASSPORT SINCE 1959*

Figure 6

Purchased

Redeveloped

| | property | purchased | redeveloped | total investment | acres |
|---|---|---|---|---|---|
| 1 | Former Revere Sugar | 1986 | current | $ 6.5 M | 18 |
| 2 | Moran Terminal | 1969 | 1978, 1988 | $ 54.1 M | 50 |
| 3 | Mystic Pier | 1959 | | $ 9.2 M | 4 |
| 4 | Boston Marine Works | 1985 | 1985 | $ 12.2 M | 17 |
| 5 | South Boston Army Base (bldgs 117, 118 & 119) | 1988 | 1988 | $ 13.3 M | 13 |
| 6 | Former Navy Rec (1965 and 1981) | 1981 | 1984 | $ 1.7 M | 15.8 |
| 7 | Massport Marine Terminal | (1981) | 1984 | $ 22.5 M | 42 |
| 8 | Conley Terminal | 1959 | 1979, 1986 | $ 45.6 M | 101 |
| 9 | Fish Pier | 1972 | 1978, 1980's | $ 27.5 M | 9 |
| | | | **TOTAL** | **$ 192.6 M** | 269.8 |

NOTE: Seaport Access Road, South Boston Haul Road/ Bypass, Massport Haul Road, Third Harbor Tunnel, depressed Central Artery, and Central Artery Northern Area are all part of proposed roadway system for the year 2010

2) To be an advocate for commercial Port interests:

- Massport has participated actively in harbor organizations including Boston Shipping Association, Propeller Club, The Boston Harbor Association, etc. and taken a lead role in advocating Port interests with the Corps of Engineers, State agencies such as the Department of Environmental Protection, Department of Environmental Management, Department of Public Works, etc.; and in discussions with the City about waterfront planning.

3) To acquire additional properties as necessary to preserve future growth options of the commercial Port:

- Massport purchased the Old Mystic Docks, Army Base buildings 117, 118 and 119, and the former Navy Recreation property.

- Massport purchased and preserved key sites for future maritime uses, including backlands, at the former Bethlehem Steel Shipyard, Revere Sugar Refinery, South Boston Army Base, and Navy Rec property. Sites purchased by Massport and preserved for Port uses are shown in Fig. 6.

- In 1985, Massport paid an above-market price for the Bethlehem Shipyard to secure that site for water-dependent uses rather than the residential development envisioned by other bidders.

- At this site, Boston Marine Works provides drydock and graving yard facilities for the smaller fishing, water transportation and Coast Guard ships in the Port of Boston. In an innovative combination of waterfront uses, the lessee also operates a marina and leases rehabilitated shipyard buildings to maritime maintenance companies.

4) To invest in fishing and lobstering facilities and other water-dependent activities such as water transportation:

- A $27.5 million investment in the Fish Pier provided up-to-date processing on the first floor of buildings, fish company offices on the second floor, and commercial office space on the third floor.

- Massport created the Airport Water Shuttle from Rowes Wharf to Logan Airport and subsidized its first 5 years of operation.

- Massport sponsored the Logan Airport/Boston Harbor Water Transportation and the Boston Inner Harbor Water Dependent Use studies.

5) To generate cross-subsidies for maritime uses by redeveloping obsolete facilities:

- The new Property Management and Real Estate Development Department began to redevelop obsolete port properties to make them financially self-sustaining and to generate net revenues to support maritime activities.

  Massport redeveloped Commonwealth Pier as the World Trade Center. An initial "seed" investment in over $10 million of improvements to the Pier, its headhouse, and Northern Avenue was made to attract redevelopment partners. The Authority then began a search for a suitable private partner willing to redevelop the Pier commercially while maintaining water-dependent uses and public access to the water's edge.

  The World Trade Center and reconstructed Northern Avenue pioneered and catalyzed private reinvestment in South Boston .

- The redevelopment of Hoosac Pier into Constitution Plaza applied the same logic to an outmoded facility badly in need of repair.

- Redevelopment of the East Boston Piers has followed a similar strategy including the provision of a lobster terminal, a public park, and eventual reuse of Piers 1 and 3 and their backlands.

6) To maintain rail access and improve highway access to its cargo terminals: Massport has consistently worked to improve access to its facilities by cooperating with agencies and neighborhoods to find or create truck routes which avoid residential areas. For example:

- Massport built the Commonwealth Flats Haul Road which connects South Boston terminals more directly to regional highways.

- As part of its broader South Boston revitalization effort, Massport invested nearly $10 million in a comprehensive rehabilitation of Northern Avenue's roadway surface, utility lines, sewers and waterside landscaping.

- East First Street decongestion: Massport bought loading dock rights for $539,000 to encourage trucks to bypass residential streets.

  Massport co-sponsored the study to improve truck access to Moran Terminal and reduce traffic congestion on residential streets in Charlestown. The Little Mystic Bridge and Chelsea-Water Streets Connector facilities were then built by MDPW.

- Massport co-sponsored a similar study for development of a route that would take trucks to regional highways without going through residential areas of South Boston. This work laid the basis for changes in existing truck routing and the construction of the South Boston Bypass Road by the MDPW, set to open in 1991.

7) To provide public access to the waterfront at Massport developments. Successful examples of Massport's achievement in providing public access to its facilities include:

- Harborwalk at Logan Airport, Massport's contribution to public access and open space includes extensive waterfront walkways and over six acres of public park, an investment of over $5 million.

- A walkway and marina at Constitution Plaza, Charlestown.

- A buffer park at Conley Terminal, including installation of a tree strip and related watering systems fronting Day Boulevard as it leads to the MDC Castle Island Park.

- Massport's contribution of land and $5 million for the construction of an MDC park on the East Boston Piers.

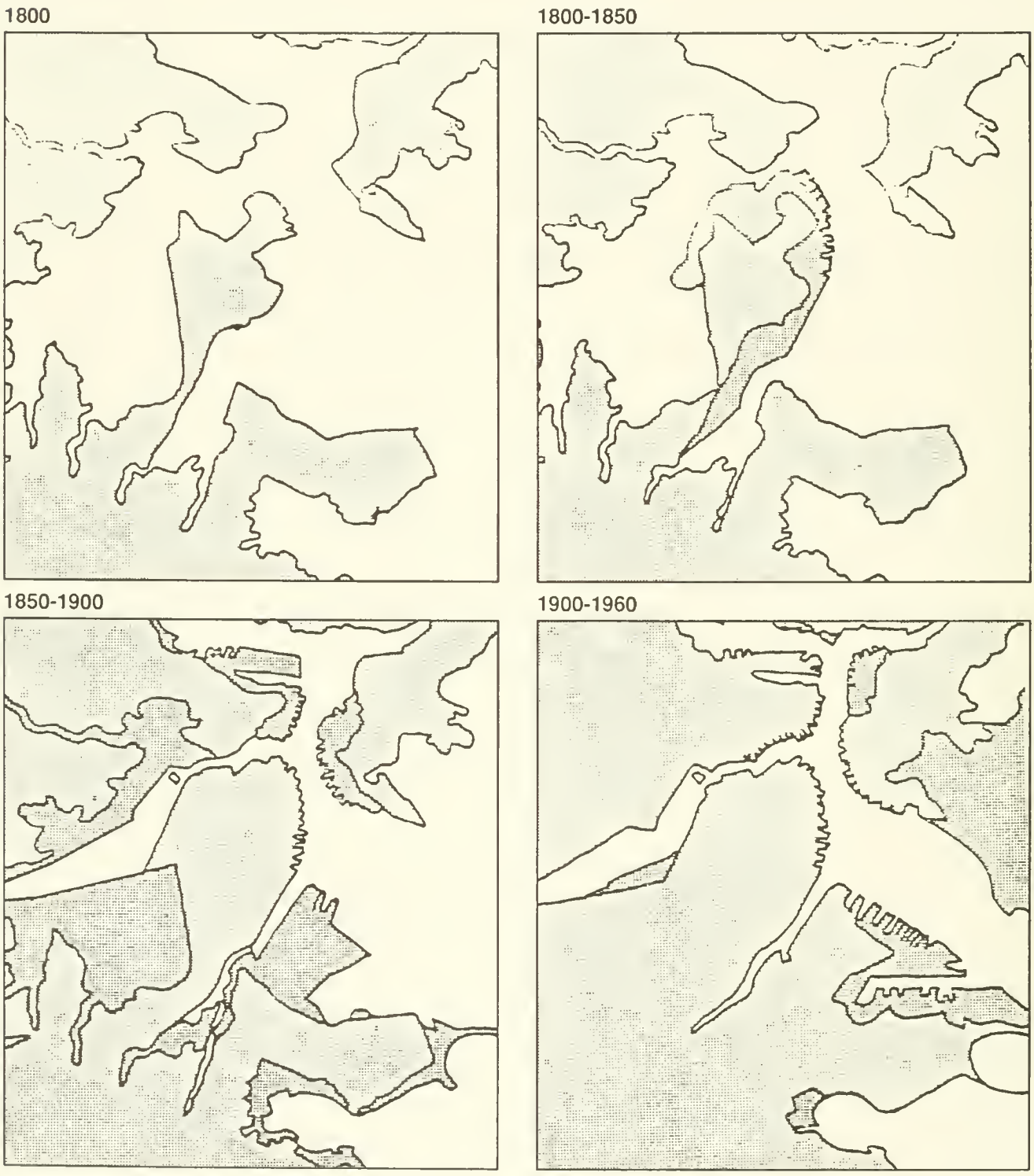
# APPENDICES

# APPENDIX A: *Chronology of Massport Maritime Property Development*

| LOCATION \ INFORMATION | ORIGINAL CONSTRUCTION DATE & USE | CURRENT USE | MASSPORT ACQUISITION |
|---|---|---|---|
| 1. FORMER REVERE SUGAR TERMINAL | 1946 | bulk cargo handling and MWRA construction staging | 1986 intended for bulk cargo |
| 2. CONSTITUTION PLAZA ( former Hoosac Pier ) | late 19th C major foreign trade terminal with rail service | office park, restaurant and marina | 1959 |
| 3. MORAN TERMINAL | early 20th C coal terminal | container terminal | 1959 |
| 4. MYSTIC PIER # 1/ 48-50 | mid-1950's Pier 1 rebuilt for break-bulk cargo | 48-50 bulk available for break-bulk cargo | 1959 |
| 5. EAST BOSTON PIERS | 19th C railroad steamship terminal | miscellaneous maritime uses | 1959 |
| 6. BOSTON MARINE WORKS | early 20th C Bethlehem Steel Shipyard | shipyard and marina | 1985 |
| 7. COMMONWEALTH FLATS and NORTHERN AVENUE | late19th C filled and used for NY, NH & H Railroad terminal | US Navy ship building & repair<br>1960's rail piers become parking rail yards abandoned | 1959 |
| 8. COMMONWEALTH PIER | 1914 by Commonwealth; leased to private corporations | World Trade Center offices, exhibition hall, conference center | 1959 |
| 9. FORMER NAVY REC | WW II for military use | industrial park and port terminal | 1981 |
| 10. BOSTON FISH PIER | 1914 by Commonwealth; leased to private corporations activity relocated from 'T' wharf | fishing industry related offices | 1959<br>1972 Massport buys lease |
| 11. MASSPORT MARINE TERMINAL | 1979-81 filled by Massport with Southwest Corridor fill | first automobile terminal | 1981 leased |
| 12. SOUTH BOSTON ARMY BASE | 1918 supply depot | cruise terminal, cargo terminal, warehousing | 1959 lease (90 years)<br>1988 purchased for non-container use |
| 13. CONLEY TERMINAL ( former Castle Island Terminal ) | 1940's for WWII use | containers and automobiles | 1959 |
| Other related capital expenses in the 1980's | | | |
| TOTAL | | | |

| CAPITAL IMPROVEMENTS | CHRONOLOGICAL PROFILE | | |
|---|---|---|---|
| **$ 6.5 M**<br>purchase & improvements | **until 1986**<br>sugar warehousing and processing | **1986- present**<br>maritime support uses | |
| **$ 4.1 M** Massport<br>**$ 18.0 M** private | **1970's**<br>non-maritime warehousing | **1984** office/ restaurant, marina constructed | |
| **$ 54.1 M** Massport<br>purchase & improvements | **1972** change from bulk to containerized goods, container terminal opens | **mid 1970's** container operation near capacity<br>**1978** expanded | **1988** expanded |
| **$ 9.2 M** | **1959**<br>transferred to Authority | | |
| **$ 7.1 M** | 2 phases planned:<br>1) park & lobster terminal<br>2) mixed use | use currently under planning | |
| **$ 12.2 M**<br>purchase & clean-up | **1986** started operations | **presently** shipyard and marina | |
| **$ 9.7 M**<br>**$ 2.8** grants | Seaport Access Road and THT proposed<br>**1980** Commonwealth Flats Industrial Park Master Plan | **1983** Northern Ave. Design Guidelines<br>**1985** street and utilities rebuilt; new sewer & | pumping station<br>**1988** Northern Ave. is now a commercial street with pedestrian circulation |
| **$ 11.3 M** Massport<br>**$ 100.0 M** private<br>redevelopment cost | **1970's** non-maritime use | **1981-1984** Feasibility studies and RFP | **1985** opened as World Trade Center |
| **$ 1.7 M** | **1984**<br>change to container & autos | **1987** Massport Marine Terminal expands to Navy Rec | |
| **$ 27.5 M**<br>**$ 8.5 M** grants | **c. 1978** EDA grant for rehab as fish pier | **early 1980's**<br>redeveloped for office use & commercial fishing | |
| **$ 22.5 M**<br>redevelopment cost | **1984** opens | **1987** expands to Navy Rec | **presently** autos |
| Black Falcon Cruise Terminal<br>**$ 7.1 M**<br>building systems upgrade<br>**$ 6.2 M** | buildings 117, 118, 119 | | |
| **$ 45.6 M** | **mid1970's** Sealand had exclusive use of container facility | **1983** additional terminal opens<br>**1987** expands | |

**$ 2.3 M**
**$ 238.4 M** **Massport investment (including grants)**




*LAND CREATION IN BOSTON HARBOR 1800-1960*
*The 1975 Regional Open Space Plan*

Figure 6

# APPENDIX B:

## *History of the Port,17th-19th Century*

The Port of Boston is more than a collection of waterfront cargo terminals on a magnificent natural harbor. Boston's seaport has historically mirrored New England's place in the larger world. On a regional level, the Port has always been intimately linked to the economic lifeline of the Boston area, including its employment base, the cost and availability of consumer and producer goods, and the attractiveness of the area as a place to carry on international commerce. For local residents, a busy waterfront and reliable water transportation have been part of daily life for centuries.

### *Early History*

During the seventeenth century, the thirteen Colonies served as a hinterland and revenue source for England while the Colonial ports, including the Port of Boston, were used for raw materials export and immigration. Boston soon became an active trading port in its own right along with other great seaboard cities of North America, including New York, Charleston, Philadelphia and Baltimore. The Far East trade to China and India (which peaked between 1790 and 1820) established Boston as a world-class port and mercantile city. During much of the nineteenth century, Boston was the second most active U.S. port.

Seaport activity catalyzed an increasing array of linked economic activities. Shipping commerce contributed to, and drew directly upon, the regional economy as Boston merchants combined exports with processing and transshipment of imported materials. For example, the infamous Rum Trade linked West Indies molasses to the slave trade and local production of sugar and rum. Merchant capital accumulated from Boston shipping and trade activities fueled the U.S. Industrial Revolution by financing nationwide railroad construction and the innovative textile machinery, mills and mill towns of New England. The Port also made nearby Lynn 'shoemaker to the world' due to the nexus in Boston of South American hide imports and Leather District wholesalers.

The Port's physical character has evolved in response to dynamic transformations in national and international trade, in political context, and in Boston's urban fabric. New transportation and cargo-handling technologies also fueled this dynamism by compelling the Port of Boston to offer ever more berths, terminals and landside transportation comparable to those of competing ports. These forces for change continue today.

From the time of Boston's founding, cycles of landfill and expansion have pushed the waterfront outward and redefined the Port of Boston. As piers extended seaward, landfill also pushed seaward, leaving older piers landlocked. During the 1860s, the need for direct access between North End and South End rail terminals led to the creation of Atlantic Avenue. As a result, older wharves were cut off from their waterfront access. (Fig. 6) The technological imperative of rail access to piers drove port activities to South Boston, East Boston and Charlestown, where rail yards were built on fill and new piers were constructed. Similarly, highway and truck access became an important requisite of competitive port facilities during the twentieth century.

### *The 20th Century Port*

In the twentieth century, new cargo handling technologies changed the configuration of Port facilities. As worldwide cargo handling evolved from break-bulk to container shipping in the 1960s, Boston's narrow-apron piers became obsolete. Backland requirements for storage and handling of containers and automobiles could not be satisfied with traditional long, narrow piers. As a result, new container terminals were built which reclaimed former rail yards, as at the Old Mystic Docks - now the Moran Terminal - or moved to recent landfill, as at Castle Island Terminal, now the Conley Terminal.

Modern handling of bulk goods further changed the waterfront landscape. New bulk storage structures, including cement silos and fuel tank farms, joined nineteenth-century grain elevators.

Changes in fish markets and fish processing imposed new functional demands upon waterfront facilities. Improvements in freezing and filleting processes demanded more specialized and capital-

intensive plants than the salting sheds used in earlier centuries. However, even Boston's state-of-the-art Fish Pier, erected in 1914 with public monies, could not protect the local industry from larger market fluctuations.

Government price supports and fish purchases encouraged increased Boston fish landings during World War II but the industry subsequently declined when price supports ceased after the War. An increasing percentage of unprocessed fish originated from foreign vessels during the post-war decades. The Boston fishing fleet could no longer compete effectively and, as a result, the Fish Pier was only sparsely used. A subsequent complete renovation brought the Boston Fish Pier up to contemporary standards for handling and shipping.

Today, given established shipping channels and the relatively recent environmental limitations imposed on filling coastal wetlands, the shape of the Port and the location of deep-water berths are now more stable than at any time in the Port's history. Port facilities, public and private, occur in four areas: South Boston, East Boston, Chelsea, and the Mystic River waterfronts of Charlestown and Everett.

Despite the stability of physical boundaries, the history of ongoing change in markets and technologies reinforces the fact that Massport must anticipate change in order to preserve future Port options and to maintain the benefits of competitive shipping rates to the New England economy.

# APPENDIX C:

## *Glossary of Port Terms*

### APRON
Aprons are pier edges between warehouses or consolidation sheds and shipside. So-called 'narrow-apron' piers become obsolete when truck access and large cranes are required at shipside.

### BACKLANDS
Backlands comprise all the on-shore space required for particular pier or cargo terminal operations. In the past, typical backlands uses included train marshalling yards and grain elevators, as at the Old Mystic Docks, or multiple-story warehouses, as occur at the South Boston Army Base. Today, open backlands with extensive acreage for shipping containers or automobiles have largely replaced rail yards.

### BILL OF LADING
Contract of carriage between the shipper and the common carrier that states the terms under which cargo is moved including the ports of origin and destination.

### BREAK-BULK
A break-bulk shipment requires handling of multiple individual pieces in the transfer between water and land transportation modes. Break-bulk processing has traditionally been labor-intensive, even when nineteenth-century technology brought rail cars directly onto piers.

### BULK CARGO
Bulk cargoes have a high weight to value ratio that makes shipping and transfer in small packages uneconomical. Bulk cargoes such as grain, flour, cement, molasses and petroleum are moved between ships and landside by conveyor belt or pipe and often stored at the waterfront in grain elevators, cement silos or tank farms.

### BULKHEAD
Piers can be constructed above the water on pilings, or on soil protected from waves by vertical walls (bulkheads).

### CONTAINER CARGO
The now-familiar intermodal containers, standardized steel boxes (usually twenty or forty feet long) transported overland by trucks or 'piggy-backed' on rail cars, revolutionized cargo handling because the cargo configuration remains constant for sea, highway or rail transport. Container handling requires a larger capital investment for cranes and terminals but lessens the time and labor required for cargo transfer.

### DESIGNATED PORT AREAS
Area created under the Massachusetts Coastal Zone Management Program, and reserved for maritime uses.

### GENERAL CARGO
Mixed goods, rather than homogeneous bulk cargo, automobile and lumber shipments, are termed general cargo. General cargo may be transported break bulk or in containers.

### INTERMODAL ACCESS
Intermodal access, the direct connection of both rail lines and high-speed highways to port terminals, assures maximum flexibility for container shippers and competitiveness for terminal facilities.

### LANDSIDE ACCESS
Landside access refers to the streets, highways and railroads that provide the crucial link between the waterfront and surrounding region. Landside access is evaluated by the speed and convenience of access between terminals and limited-access highways or main rail routes.

### PORT OF BOSTON
The Port of Boston refers to public terminal facilities owned by Massport.

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